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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/342,824 | 06/29/1999 | PETER J. WILK | W07-426 | 7142 |

7590 06/28/2005

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| EXAMINER |
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MANTIS MERCADER, ELENI M

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| ART UNIT | PAPER NUMBER |
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3737

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/342,824

Applicant(s)

WILK, PETER J.

Examiner

Eleni Mantis Mercader

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 18 December 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 12/22/2000 have been fully considered but they are not persuasive. Applicant's attention is redirected to col. 7, lines 13-55 wherein the Drewes et al.'514 reference clearly teaches that the determination of the appropriate treatment resonance frequency is achieved for a plurality of cells 32 rather than an individual cell as argued by Applicant, and furthermore based on this determination the destruction of the entire tumour 30 is achieved by application of the energy at the tumour 30 which is composed of a plurality of cells. With respect to the rest of the arguments, Applicant argues the references individually, which is inappropriate. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Drewes et al.'514.

Drewes et al.'514 teach a method for treating cancer comprising:

detecting a tumor in a patient (col. 5, lines 5-32) and applying mechanical pressure waves to said tumor at a mechanical resonance frequency of said tumor to effectively destroy said tumor (col. 7, lines 13-55). In col. 7, lines 13-55 the Drewes et al.'514 reference clearly teaches that the

determination of the appropriate treatment resonance frequency is achieved for a plurality of cells 32 rather than an individual cell, and furthermore based on this determination the destruction of the entire tumor 30 is achieved by application of the energy at tumor 30 as a unitary body which is composed of a plurality of cells.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilk'446 in view of Granz et al.'815 and further in view of Drewes et al.' 514.

Wilk'446 teaches the use of a perforated flexible web with electroacoustic transducers attached to the web, an ac current source being connected to the transducer for energizing the transducer with an electrical signal of a pre-established ultrasonic frequency to produce a first pressure wave (col. 8, lines 50-61 and col. 9, lines 39-45) and electroacoustic transducers connected to an analyzing component is attached to the electroacoustic transducer for determining three dimensional shapes of internal organs of the patient by analyzing signals generated by the electroacoustic transducers in response to second pressure waves produced at internal organs of the patient in response to the first pressure wave (col. 8, lines 62-67 and col. 9, lines 1-10) while therapy is performed (col. 11, lines 25-29).

Wilk'446 does not teach the use of transducers for not just detection but also for treatment.

Granz et al.'815 teaches the use of transducers not only for detection and imaging but also for treatment (col. 1, lines 64-67 and col. 2, lines 1-67). It would have been obvious to one skilled in the art at the time the invention was made to have used the transducers as taught by Granz et al.'815 in the apparatus of Wilk'446 in order to identify with more precision the area of interest and therefore position exactly the effective region of therapeutic waves (as taught in Granz et al.'815 col. 1, lines 54-59) as well as eliminate the use of invasive probes for treatment.

Wilk'446 in view of Granz et al.'815 do not teach the use of the transducers for detecting resonant frequencies of selected cells and using a destructive frequency for the selected cells as a way of treatment. Drewes et al.'514 teach the use of the transducers for detecting resonant frequencies of selected cells and using a destructive frequency for the selected cells as a way of treatment (col. 1, lines 59-68; col. 2, lines 1-68 and col. 3, lines 1-62). It would have been obvious to one skilled in the art at the time the invention was made to have used the transducers of Wilk'446 in view of Granz et al.'815 to detect resonant frequencies of selected cells and use a destructive frequency for the selected cells as a way of treatment as taught by Drewes et al.'514 as an alternative way to treat the area of interest.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eleni Mantis Mercader whose telephone number is (571) 272-4740. The examiner can normally be reached on Mon. - Fri., 8:00 a.m.-6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Eleni Mantis Mercader
Primary Examiner
Art Unit 3737

EMM